

## Lesson 4 Virus'.notebook

### Virus'

- special micro-organisms that do not fit into any of the 6 kingdoms
- unique in that they are lifeless outside a living cell, but can use a living to produce copies of itself (replicates)
- occupies a position between living and non living

Viruses.video.asx

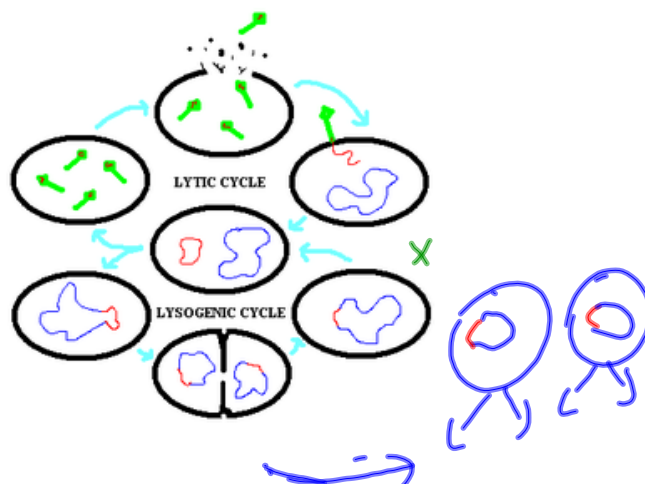
- composed of a core of DNA or RNA surrounded by a protein coat ← Capsid
- can infect a cell in 2 different ways

#### A. Lytic Pathway (BULLY)

- gains access to the host cell by releasing an enzyme to breakdown the cell membrane
- once in the cell the virus will gain control of the cells normal activities and instruct it to use the cell components to make new copies of itself (occurs on ribosomes)
- the new virus' will then burst out of the cell destroying the cell in the process

#### 2. Lysogenic Pathway (Back stabber)

- virus will gain entry into a cell in the same way as the bully
- this time the virus will not immediately shut down the cell but instead will have its genetic material join the cell genetic material
- as the cell divides into new cells each new cell will have some of the viral DNA in it
- then at some point the virus will take over the cell in the same manner as with the Lytic pathway, eventually making copies of itself and then destroying the cell.



- since virus' aren't living antibiotics will not destroy them
- vaccinations are the only way to help avoid viral infections
- your immune system also plays a major role in fighting viral infections
- *Wash your hands*
- eat properly, exercise, get at least 8 hrs sleep, don't smoke are all ways to help your immune system
- examples of viral infections are: common cold, influenza, AIDS, Chicken pox, Hepatitis, H1N1 and ebola

Review questions:

page 465 1-5;9-15;18-19;25

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Attachments

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